

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/003012

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F16J15/34 F16C17/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F16J F16C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 399 024 A (SHAPIRO) 21 March 1995 (1995-03-21)	1-13, 15, 16, 20, 21, 25-39, 43-46
A	the whole document	25
X	FR 2 113 492 A (VEB) 23 June 1972 (1972-06-23) the whole document	1, 14-18, 22-24
X	US 2 137 487 A (HALL) 22 November 1938 (1938-11-22) the whole document	1, 14-19, 22-24
X	US 6 435 822 B1 (KOBAYASHI ET AL) 20 August 2002 (2002-08-20) abstract; figures	47, 48

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \* & \* document member of the same patent family

Date of the actual completion of the international search

27 September 2004

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04/10/2004

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5399024	A	21-03-1995	NONE	
FR 2113492	A	23-06-1972	CH 554502 A	30-09-1974
			CS 157732 B2	16-09-1974
			DE 2143684 A1	10-05-1972
			FR 2113492 A5	23-06-1972
			SU 486159 A1	30-09-1975
US 2137487	A	22-11-1938	NONE	
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			US 6302645 B1	16-10-2001
			US 6039535 A	21-03-2000